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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/880,540	06/12/2001	John C. Eidson	10992787-1	5299

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AGILENT TECHNOLOGIES, INC.
Legal Department, DL429
Intellectual Property Administration
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Loveland, CO 80537-0599

EXAMINER

TON, ANTHONY T

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/880,540

Applicant(s)

EIDSON, JOHN C.

Examiner

Anthony T Ton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 18-19 is/are rejected.
- 7) ☒ Claim(s) 16 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-546)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____


PHIRIN SAM
PRIMARY EXAMINER

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

Term "timing data packet 160-162" in page 8 lines 32 is improper since the timing data packets are corresponding to references 190-192.

Examiner suggests changing this term to "timing data packet 190-192"

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claims 5-10** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites the limitation "a set of clock meta-data" in lines 4-5. There is insufficient antecedent basis for this limitation in the claim. Is the limitation "a set of clock meta-data", which is recited in lines 3-4, the same as this limitation? Please clarify.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1-15, 18 and 19** are rejected under 35 U.S.C. 102(e) as being anticipated by

Johnson (US Patent No. 6,324,586).

a) **In Regarding to Claim 1:** *Johnson* disclosed a distributed system, comprising:

a set of nodes that communicate via a set of sub-nets of the distributed system (*see*

Fig.12: computers 24 (a set of nodes) and 162-170 (a set of sub-nets)),

the nodes each having a local clock (*see Fig.4: an internal clock 56 in the node 24),*

the nodes maintaining time synchronization among the local clocks by

transferring a set of timing data packets via the sub-nets (*see col.4 lines 30-43;*

and col.8 line 54 – col.9 line 7); and

time synchronization bridge that coordinates time synchronization among the sub-nets in response to the timing data packets (*see Figs. 4 and 12: node 18 and GPS reference, respectively).*

b) **In Regarding to Claim 2:** *Johnson* further disclosed the time synchronization bridge maintains an internal time and synchronizes the internal time to a local clock on a selected one of the sub-nets (*see col.8 line 54 – col.9 line 7; and col.16 lines 52-59).*

c) **In Regarding to Claim 3:** *Johnson* further disclosed the time synchronization bridge uses the internal time to synchronize the local clocks on the remaining ones of the sub-nets (*see col.5 line 64 – col.6 line 12).*

d) **In Regarding to Claim 4:** *Johnson* further disclosed the time synchronization bridge

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maintains an internal time and synchronizes the local clocks to the internal time (*see col.8 line 65- col.9 line 1*).

e) **In Regarding to Claim 5:** *Johnson* further disclosed the time synchronization bridge determines a master clock in the distributes system in response to a set of clock meta-data in the timing data packets and a set of clock meta-data associated with an internal time maintained by the time synchronization bridge (*see col.5 line 30-43: master clock, packet of information; Figs. 4 and 5: synchronized data 64 (a set of clock meta-data); and col.5 line 38- col.6 line 47*).

f) **In Regarding to Claim 6:** *Johnson* further disclosed the clock meta-data associated with the internal time of the time synchronization bridge indicates a GPS time source (*see col.5 lines 15-19*).

g) **In Regarding to Claim 7:** *Johnson* further disclosed the clock meta-data associated with the internal time of the time synchronization bridge indicates an atomic clock time source (*see col.5 lines 15-19*).

h) **In Regarding to Claim 8:** *Johnson* further disclosed the clock meta-data includes an indication of quality of the corresponding local clock (*see col.4 lines 53-65: the master clocks of all interacting computers could be made to extremely accurate (quality), i.e. down to a nanosecond*).

i) **In Regarding to Claim 9:** *Johnson* further disclosed the clock meta-data includes an indication a number of other time synchronization bridges traversed by the corresponding timing data packet (*see col.8 lines 1-15: the connected computers 24 execute instructions or instruction sets, outputting and inputting data a predetermined intervals of the GPS clock, i.e. the*

organizational tiers 150-158 (hence, a number of other time synchronization bridges passed through (traversed by) a corresponding timing data packet)).

j) In Regarding to Claim 10: *Johnson* further disclosed the clock meta-data includes an indication that the corresponding local clock is preferred as the master clock (*see col.8 line 52-col.9 line 7: each computer is identified with a specific time address and allocated a specific time segment based on that address*).

k) In Regarding to Claim 11: *Johnson* disclosed a time synchronization bridge (*see Figs.4-6: 18*), comprising:

means for maintaining an internal time in the time synchronization bridge (*see Fig.4: Control Processor 52 and Internal Reference Clock 44*); and

a set of synchronization modules corresponding to a set of sub-nets (*see Fig.12: nodes 24 and layers 160-170*),

each synchronization module having means for adjusting the internal time in response to a set of timing data packets received via the corresponding sub-net (*see Fig.4: CPU 54 and Internal Clock 56; and Synchronized Data 64*), and means for distributing the internal time via the corresponding sub-net (*see Figs 4 and 5: Transfer Member 26*).

l) In Regarding to Claim 12: *Johnson* further disclosed each synchronization module includes a clock and means for synchronizing the clock in response to the timing data packets received via the corresponding sub-net (*see Fig.4: Clock 56, interface card 22, and CPU 54*).

m) In Regarding to Claim 13: *Johnson* further disclosed the means for maintaining an internal time includes means for selecting one of the clocks as a primary clock in the time

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synchronization bridge such that the clocks synchronize to the primary clock (*see Fig.4: blocks 46, 48 and 50; col.8 line 54 – col.9 line 7; and col.11 lines 14-17*).

n) **In Regarding to Claim 14:** *Johnson* further disclosed the means for selecting includes means for selecting the primary clock in response to a set of clock meta-data contained in the timing data packets (*see Fig.4: blocks 46, 48 and 50*).

o) **In Regarding to Claim 15:** *Johnson* further disclosed the means for maintaining an internal time comprises a central clock (*see Fig.4: clock 44*).

p) **In Regarding to Claim 18:** *Johnson* further disclosed the time synchronization bridge further comprising a GPS time source (*see col.5 lines 15-19*).

q) **In Regarding to Claim 19:** *Johnson* further disclosed the time synchronization bridge further comprising an atomic clock time source (*see col.5 lines 15-19*).

Allowable Subject Matter

6. **Claims 16 and 17** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Examiner Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Anthony T. Ton** whose telephone number is **571-272-3076**. The examiner can normally be reached on M-F: 9:00 am - 5:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Chau Nguyen** can be reached on **571-272-3126**. The fax phone number for the organization where this application or proceeding is assigned is **703-872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully submitted,

by: *AT*
Anthony T. Ton
Patent Examiner
January 24, 2005



PHIRIN SAM
PRIMARY EXAMINER